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New Single Piece Blast Hardware Design

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New Single Piece Blast Hardware Design

W, Q and PF engineers and machinists designed and fabricated, on the new Mazak i300, the first Single Piece Blast Hardware (unclassified design shown) reducing fabrication and inspection time by over 50%. The first DU Single Piece is completed and will be used for Hydro Test 3680.

Past hydro tests used a two-piece assembly due to a lack of equipment capable of machining the complex saddle shape in a single piece. The i300 provides turning and milling 5-axis

Comparison of DU Blast Hwd Fabrication and Inspection Hours

<u>Hydro 3670 1st Two Piece Blast Pipe Assembly Using HAAS</u>	<u>Hydro 3670 2nd Two Piece Blast Pipe Assembly using i300</u>	<u>Hydro 3680 One-Piece Blast Pipe using i300</u>
Inner Saddle: 362 hrs	Inner Saddle: 169.5 hrs	Inner Saddle/Blast Shield One-Piece: 296.5 hrs
Blast Shield: 197.5 hrs	Blast Shield: 58 hrs	
Inner Saddle/Blast Shield Assembly: 207.5 hrs	Inner Saddle/Blast Shield Assembly: 198.5 hrs	
Total: 767 hrs.	Total: 426 hrs	Total: 296.5hrs

machining on one machine. The milling head on the i300 can machine past 90° relative to the spindle axis. This makes it possible to machine the complex saddle surface on a single piece. Going to a single piece eliminates tolerance problems, such as tilting and eccentricity, that typically occurred when assembling the two pieces together.

Unclassified Single Piece Design



MAZAK Integrex i300

